

XSEDE Software and Services Table For Service Providers and Campus Bridging

24 September 2015

Version 1.4



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none

A. Document History

Relevant Sections	Version	Date	Changes	Author
Entire Document	1.00	5/11/2012	Baseline	VGH,TB,JPN
Updated table on page 2	1.1	2/19/2013	Changed some items to Globus Toolkit (instead of command), removed tgproxy and set Glue2 as optional	
Page 2 table	1.2	5/9/2013	Removed tgusage, added xdusage, updated gridftp and UNICORE	V. Hazlewood
SP Level 2 column	1.3	1/8/2014	Updated Level 2 SP column to have Yes ²	V. Hazlewood
Entire document	1.4	9/24/2015	Updated to match Software and Services v1.2 document	V. Hazlewood T. Samuel

B. Document Scope

The following describes the software and services for XSEDE Service Providers (SPs) and those interested in being a Campus Bridging provider by bridging into the XSEDE cyberinfrastructure. This document is intended to be consistent with the XSEDE Software and Services Baseline document version 1.2.

C. Software and Services Summary Table

The following describes the software and services for XSEDE Service Providers (SPs) and those interested in being a Campus Bridging provider by bridging into the XSEDE cyberinfrastructure. The XSEDE Software and Services Baseline document [1] version 1.2 provides more detail. Table 1 below provides a concise high-level overview with links to further descriptions and links to the software and installation instructions.

XSEDE SPs that are part of the XSEDE Federation are required to install the software and services as described in Table 1 below based on the SP Level and SP Type. The SP Levels are Level 1, Level 2 and Level 3 and the levels are described in the Service Provider Definition document [2]. The SP Types are HPC for High Performance Computing resource, HTC for High Throughput Computing resource and Viz for Visualization resource. Where “Yes” is indicated in a cell in the table below, it indicates that the SP at the indicated Level and Type column is required to install and maintain the software and/or service indicated in the corresponding row. Where “No” is indicated the software or service is not required, but it should be considered optional based on the needs of the SP or campus bridging provider.

Note: XSEDE SP Data Storage resource requirements are not currently described in this document. For more information for SPs providing Data Storage resources submit a ticket with the details of the question or contact the Operations Software Testing and Deployment Manager or Operations Deputy Director for more information on Data Storage resource requirements.

[1] – (TBD)

[2] - <http://hdl.handle.net/2142/49980>

Software and Services	SP Level 1			SP Level 2			SP Level 3/ Campus Bridging		
	SP Type			SP Type			SP Type		
	HPC	HTC	Viz	HPC	HTC	Viz	HPC	HTC	Viz
Registration									
Information Services Stopgap	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Glue2 (for Job/Load info available 4Q15)	Yes	No ³	No ³	Yes ²	No ³	No ³	No ³	No ³	No ³
Glue2 (when available replaces Stopgap)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Common User Environment									
Common User Environment variables									
Monitoring									
INCA	Yes	Yes ¹	Yes ¹	Yes ¹	Yes ¹	Yes ¹	No ³	No ³	No ³
Accounting and Account Mgmt									
AMIE – Account Mgmt Info Exchange	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Data Movement Servers									
Registration (use stopgap)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
GridFTP	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
GSI OpenSSH with HPN (for SCP)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Data Movement Clients									
Registration (use stopgap)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Globus Toolkit (globus-url-copy and myproxy-logon)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
GSI OpenSSH with HPN (for SCP)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Local Compute									
Registration (use stopgap)	Yes	No ³	No ³	Yes ²	No ³	No ³	No ³	No ³	No ³
Local resource management system (Slurm, PBS, Torque, etc.)	Yes	No ³	No ³	Yes ²	No ³	No ³	No ³	No ³	No ³
Single Sign-On / Remote Login									
Registration (use stopgap)	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
GSI OpenSSH with HPN	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
XSEDE-ca-certificates	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Globus Toolkit	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Other Tools									
xdusage	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
modules	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
xdresourceid	Yes	Yes	Yes	Yes ²	Yes ²	Yes ²	No ³	No ³	No ³
Visualization Software Support									
Registration (use stopgap)	No ³	No ³	Yes	No ³	No ³	Yes	No ³	No ³	No ³

Footnotes

¹ – Yes, but only the INCA testing appropriate for the resource type

² – Yes, if the SP is providing allocable resources

³ – No, but it is optional

Optional Software and Services	SP Level 1, SP Level 2, and SP Level 3/Campus Bridging		
	SP Type		
	HPC	HTC	Viz
<i>Software or Service Registration</i>			
Application development and runtime support registration (use stopgap)	Optional	Optional	Optional
Distributed programming (use stopgap)	Optional	Optional	Optional
Local HPC Software (use stopgap)	Optional	Optional	Optional
Metascheduling support (use stopgap)	Optional	Optional	Optional
Co-scheduling support (use stopgap)	Optional	Optional	Optional
Parallel application support (use stopgap)	Optional	Optional	Optional
Wide area file system support (use stopgap)	Optional	Optional	Optional
<i>Remote Compute</i>			
Registration (use stopgap)	Optional	Optional	Optional
Globus Toolkit (client) and GRAM5 (server)	Optional	Optional	Optional
GSI OpenSSH client and server	Optional	Optional	Optional
UNICORE command line client	Optional	Optional	Optional
UNICORE rich client	Optional	Optional	Optional
UNICORE servers	Optional	Optional	Optional
Genesis II client	Optional	Optional	Optional
Genesis II server	Optional	Optional	Optional
<i>Science Gateway (SG) Support</i>			
Registration (use stopgap)	Optional	Optional	Optional
Commsh for SPs with GRAM5 and SGs	Optional	Optional	Optional
Gateway user count (for gsissh)	Optional	Optional	Optional
<i>Workflow Support</i>			
Registration (use stopgap)	Optional	Optional	Optional
Condor/Condor-G	Optional	Optional	Optional
<i>Two-Factor Authentication</i>			
Registration (use stopgap)	Optional	Optional	Optional
XSEDE end user two factor authentication	Optional	Optional	Optional